



U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

**MAY 12 2000**

400 Seventh Street, S.W.  
Washington, D.C. 20590

DOT-E 10497  
(FIFTH REVISION)

EXPIRATION DATE: February 28, 2002

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Lockheed Martin Astro Space Division  
Princeton, NJ  
  
(See Appendix A for a list of additional grantees)
2. PURPOSE AND LIMITATION: This exemption authorizes the transportation in commerce of certain non-DOT specification stainless steel tanks containing dinitrogen tetroxide. This exemption provides no relief from any regulation other than as specifically stated herein.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.336 in that a non specification packaging is authorized; § 177.834(m), except as specified herein.
5. BASIS: This exemption is based on the application of Lockheed Martin, Astro Space Division dated February 29, 2000 submitted in accordance with § 107.109.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous materials description -- proper shipping name	Hazard Class/ Division	Identi- fication Number	Packing Group
Dinitrogen tetroxide, liquefied	2.3	UN1067	N/A

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7. SAFETY CONTROL MEASURES:

PACKAGING -

a. Packaging prescribed for liquid dinitrogen tetroxide consists of a stainless steel tank approximately 30 inches in diameter and 7 feet long, provided with two stainless steel valves for filling and discharging dinitrogen tetroxide, located on one end and protected by a gas tight end cap; and a stainless steel plug on the other end. This tank is similar to a specification DOT-110AW multi-unit tank car tank. The tank must be designed and constructed fully in compliance with requirements of the ASME Code for unfired pressure vessels, Section VIII, Division 1. The tank assembly must be as shown on Malcolm Industries Drawing No. 2021M, dated June 5, 1987, or Grano Steel Corp. Drawing No. M-231, dated January 16, 1990 submitted with and forming a part of the application. No new construction is authorized.

b. Prior to each shipment, all outlets and inlets must be capped or plugged on each tank containing any amount of Dinitrogen Tetroxide, Liquefied. When shipped with residual dinitrogen tetroxide, the tank assembly must be drained so that the residual amount contained therein is 5 pounds or less.

OPERATIONAL CONTROLS -

a. Shipments must be made only between the facilities and locations specified in the application in addition to the Vicksburg Chemical Company, Vicksburg, Mississippi, and between Vicksburg, Mississippi and Port Everglade, Florida; White Sands, New Mexico; San Clemente, California; Titusville, Florida; Cape Canaveral, Florida; Marysville, Washington; Long Beach, California; Charleston, South Carolina and Sunnyvale, California. These shipments must be made by motor vehicle in exclusive use service only.

b. Chemtrec and the Coast Guard Captain of the Port (COTP) at which the materials are being loaded, must be notified in advance of transport operations and effective communication must be in effect during the transport operation. A copy of this exemption must be provided to the COTP at least 24 hours in advance of each shipment.

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c. The provisions of § 177.834(m)(1) and (2) must be met.

d. Motor vehicle drivers and cargo vessel personnel must have been instructed as to necessary safeguards and proper procedures in the event of unusual delay, fire, or other accident. Such instruction must include, as a minimum, the provisions of the "Nitrogen Tetroxide Emergency Response Plan" submitted with the application, and with publication DOT P 5800.5, "2000 Emergency Response Guidebook."

e. Motor carriers operating under terms of this exemption must have a "Satisfactory" safety rating as prescribed in 49 CFR Part 385.

8. SPECIAL PROVISIONS:

MARKING - Each tank must be marked, on opposite sides, "INHALATION HAZARD" and "DOT-E 10497" in letters and numerals at least 2 inches in height on a contrasting background.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle and cargo vessel.

10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each motor vehicle and cargo vessel used to transport packages covered by this exemption.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

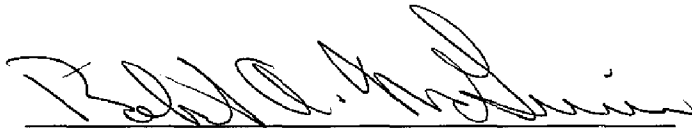
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.

Issued at Washington, D.C.:



Robert A. McGuire  
Acting Associate Administrator  
for Hazardous Materials Safety

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(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.  
Attention: DHM-31.

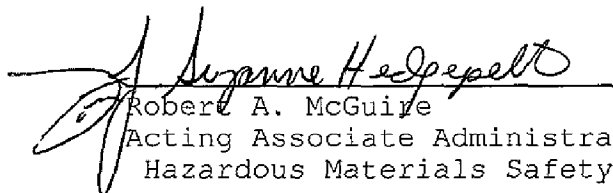
The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Dist: FHWA, USCG  
PO: AM(00)

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The following are hereby granted party status to this exemption based on their application(s) submitted in accordance with § 107.107 or § 107.109, as appropriate:

Company Name City/State	Application Date	Issue Date	Expiration Date
Lockheed Martin Space Systems Sunnyvale Operations, Sunnyvale, CA	Feb 29, 2000	<b>MAY 12 2000</b>	Feb 28, 2002

  
Robert A. McGuire  
Acting Associate Administrator for  
Hazardous Materials Safety